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10/540,969	06/29/2005	Stephen Pasquarella	89200.000007	4313

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Stephen B. Salai, Esq.  
Harter Secrest & Emery LLP  
1600 Bausch & Lomb Place  
Rochester, NY 14604-2711

EXAMINER
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KOVAL, MELISSA J

ART UNIT	PAPER NUMBER
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2862

MAIL DATE	DELIVERY MODE
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12/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,969	<b>Applicant(s)</b> PASQUARELLA ET AL.	
	<b>Examiner</b> MELISSA J. KOVAL	<b>Art Unit</b> 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) 21-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claims 33 through 47 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: New claims 33 through 47 are drawn to the details of the damping system, and particularly details of a damper with respect to a bumper and bumper shape, for example. Claims drawn to these types of limitations define species and are also analogous to claims that have previously been withdrawn by the examiner. Refer again to the restriction requirement of February 25, 2008. Applicant elected without traverse in the response of March 12, 2008. Claims 21 through 32 have been previously withdrawn. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 33 through 47 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 15 through 17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

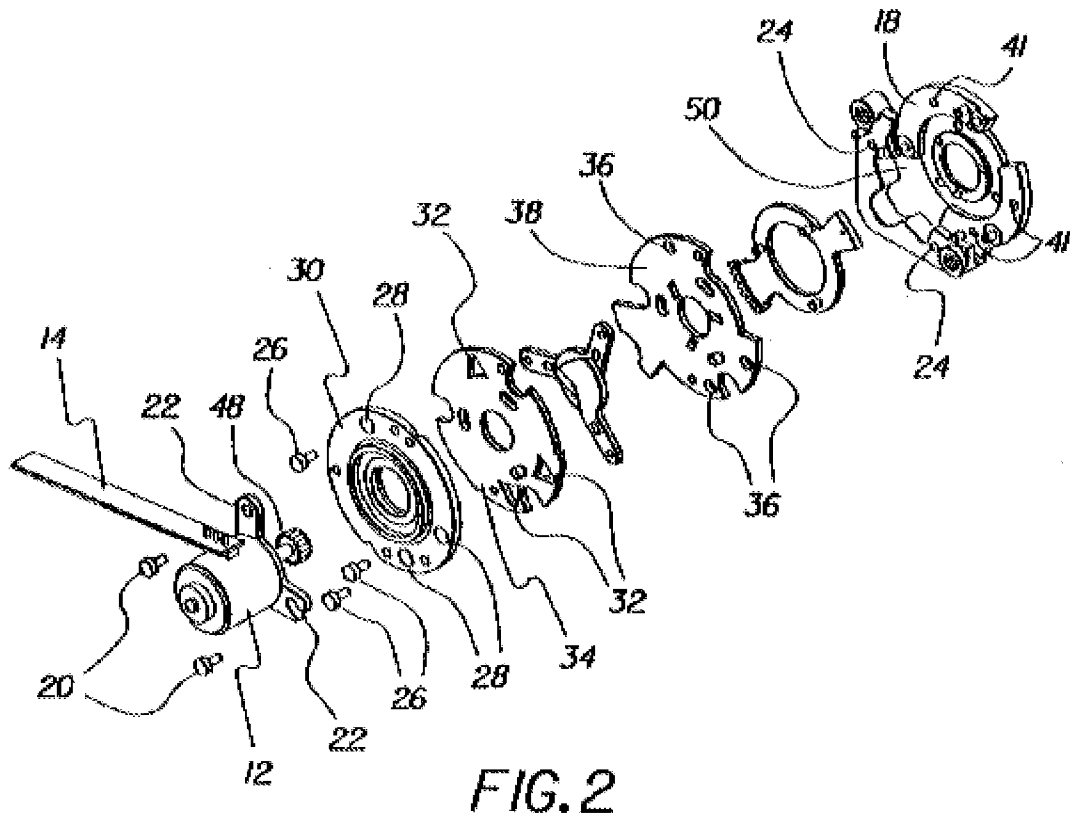
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Bovenzi et al. U.S. Patent 5,502,524.

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See Figures 2 and 3, for example.



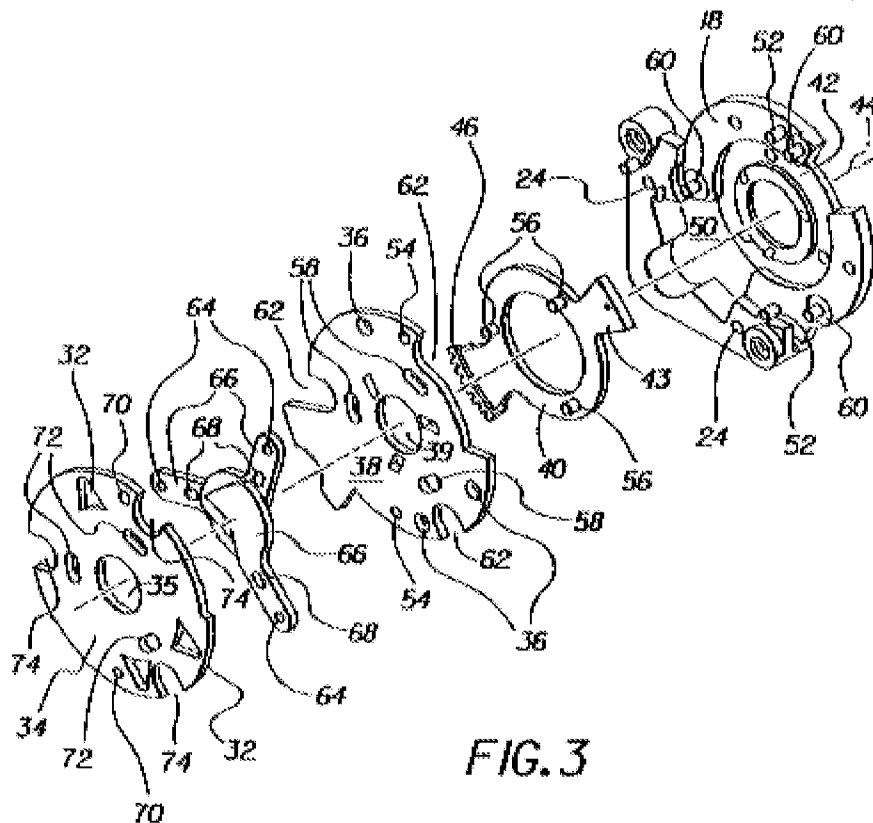


FIG. 3

5. Claim 15 sets forth: "A rotary photographic shutter (**See aperture or shutter mechanism 10 shown in Figure 1.**) or the like including a plurality of shutter blades (**shutter blades 66**) movable between an open and a closed position (**Closed positions are shown in Figure 4, and various open positions are shown in Figures 5 and 6.**) a drive means (**stepper motor 12**) including an actuator (**actuator 40**) for moving the shutter blades between the open and closed positions and a damping system operable to arrest the movement of the drive means at one of the open and: closed positions (**First damping member 34 and second damping member 38.**)".

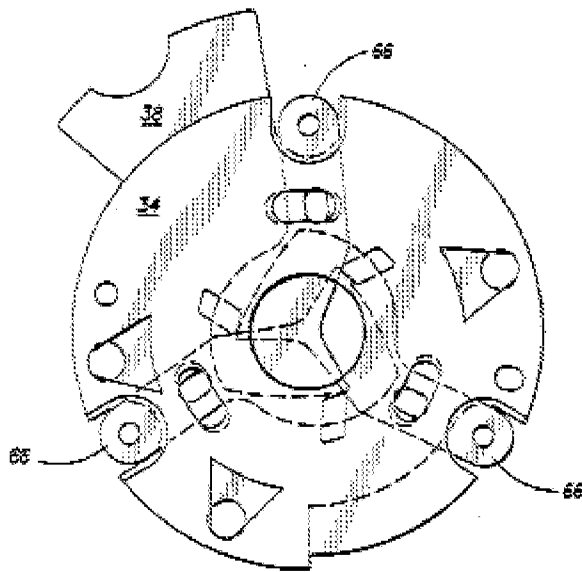
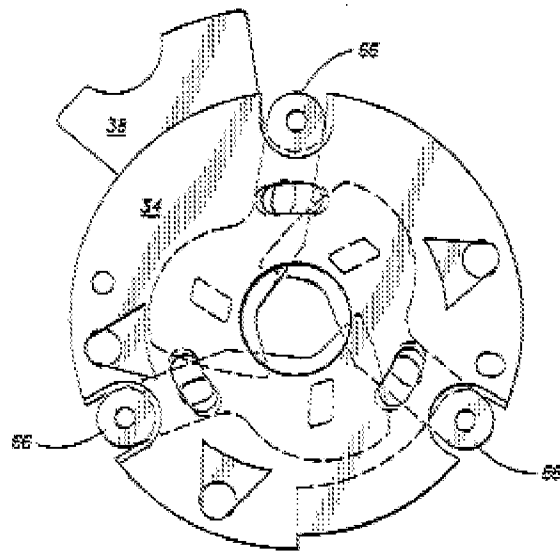


FIG. 4



*FIG. 5*



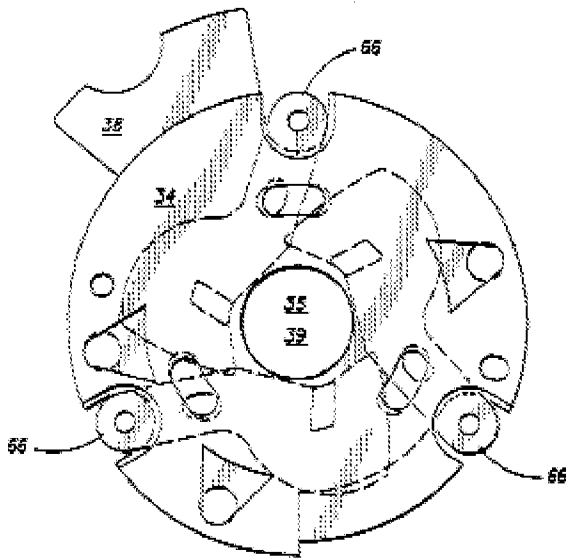


FIG. 6

A complete description of the operation of the parts is given in columns 3 and 4.

6. Claim 16 sets forth: "A rotary photographic shutter comprising (**See aperture or shutter mechanism 10 shown in Figure 1.**):

- a) a base plate having a central aperture (**base plate 18**);
- b) a plurality of rotating ring operable shutter blades supported by the base plate for opening and closing the aperture (**See shutter blades 66 supported on base plate 18 and operated by means of actuator 40** ); and
- c) a damping system on the base plate operable to dampen the opening and closing of

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the rotating ring operable shutter blades (**First damping member 34 and second damping member 38.**)”

With respect to claim 16, again consider the rejection of claim 15 as set forth above.

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

- Claims 15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 17 through 19 of U.S. Patent No. 7,367,721 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because it is clear that all the elements of the application claim 15 are to be found in patent claims 17-19 (as the application claim 15 fully encompasses patent claim 17). The difference between the application claim 15 and

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the patent claim 17 lies in the fact that the patent claim includes many more elements and is thus much more specific. Thus the invention of claim 15 of the patent is in effect a “species” of the “generic” invention of the application claim 17. It has been held that the generic invention is “anticipated” by the “species”. See *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993). Since application claim 15 is anticipated by claim 17 of the patent, it is not patentably distinct from claim 17 of the patent.

8. A line by line comparison of the claims, with differences underlined, is set forth below for applicant’s convenience:

15. <u>A rotary photographic shutter or the like including a plurality of</u> shutter blades movable between an open and a closed position	17. <u>An electromechanical</u> shutter <u>comprising:</u>  a) a shutter blade movable between an open and a closed position;
<u>a drive means including an actuator for moving the shutter blades between the open and closed positions and</u>	b) an actuator <u>coupled to the shutter blade, the actuator including a pair of motors each activated to rotate the linkage associated with each motor and operatively connecting each motor to the driver plate;</u>
	c) a bi-stable latch <u>coupled to the shutter blade for retaining the shutter in one of the opened and closed positions including</u>  i) <u>a fixed member having a cam slot</u>

	<p><u>defining spaced stop positions along a cam surface,</u></p> <p><u>ii) a pivot arm connected to the linkages, the pivot arm having an elongated slot, and</u></p> <p><u>iii) the fixed member and pivot arm being disposed one above the other with the pivot arm slot extending transverse the fixed member cam slot, and</u></p> <p><u>iv) a latch pin extending through both slots, the latch pin being biased towards the cam surface and movable along the cam surface to one or the other of the stop positions; and</u></p>
<p>a <u>damping system operable to arrest the movement of the drive means at one of the open and closed positions.</u>"</p>	<p>d) a <u>damper associated with the bi-stable latch for damping the motion of the shutter as it moves to one of the open and closed positions.</u></p>

9. Claim 16 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 through 19 of U.S. Patent No. 7,367,721

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B2 in view of Bovenzi et al. U.S. Patent 5,502,524.

Claim 16 of the application is compared with claims 1 and 18 of the patent '721.

16. A <u>rotary</u> photographic shutter comprising:	1. A <u>bi-stable</u> photographic shutter comprising:
a) a <u>base plate having a central aperture</u> ;	a) a <u>driver plate connected to</u> a plurality of shutter blades <u>arranged to open and close a shutter opening responsive respectively to the rotation of the driver plate to one of a to and fro position</u> .
b) a plurality of <u>rotating ring operable shutter blades supported by the base plate for opening and closing the aperture</u> ; and	<p>b) a pair of motors each activated to rotate the driver plate to one of the to-and-fro positions; <sup>3</sup></p> <p>c) a linkage associated with each motor and operatively connecting each motor to the driver plate, a motor and its associated linkage operating to move the driver plate to only one of the to-and-fro positions; <sup>4</sup></p> <p>d) a fixed member having a cam slot defining spaced stop positions along a cam surface;</p> <p>e) a pivot arm connected to one of the linkages, the pivot arm having an elongated slot;</p> <p>f) the fixed member and pivot arm being disposed one above the other with the pivot arm slot extending transverse the fixed member cam slot; <sup>4</sup></p> <p>g) a latch pin extending through both slots, the latch pin being biased towards the cam surface and movable along the cam surface to one or the other of the stop positions; and <sup>5</sup></p> <p>h) the fixed member, pivot arm and latch pin comprising a latch holding the driver plate at one of the to-and-fro positions in the absence of the activation of either motor. <sup>5</sup></p>
c) a <u>damping system on the base plate operable to dampen the opening and closing of the rotating ring</u>	8. A <u>bi-stable photographic shutter as in claim 1 wherein each linkage includes a drive arm and a damper is associated with at least one of the</u>

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<u>operable shutter blades.</u>	<u>drive arms to arrest the motion of both linkages.</u>
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Claim 10 of the patent '721 also sets forth a damping device.

The shape of the driver plate is not claimed by the patent '721. However, circular base plates are known such as base plate 18, shown by Bovani '524 applied in the rejection of claim 1, as set forth above. It is notoriously well known in the art that apertures define an opening for light that might be most frequently be described as a round hole. It would have been obvious to one having ordinary skill in the art at the time the invention was made that the claimed driver plate of '721 could be circular and one having ordinary skill in the art could utilize a circular driver plate with a reasonable expectation of success.

10. Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains' ". *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). The question of obviousness is resolved on the basis of underlying factual determination including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). See also *KSR*, 127 S. Ct. at 1734, 82 USPQ2d at 1391 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls."). The Court in *Graham* further noted that evidence of secondary considerations, such as commercial success, long felt but unsolved needs, failure of others, etc., "might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." 383 U.S. at 18, 148 USPQ at 467. "if a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid under §103." *KSR*, 127 S. Ct. at 1734, 82 USPQ2d at 1391.

The mere existence of differences between the prior art and the claim does not establish nonobviousness. *Dann v. Johnston*, 425 U.S. 219, 230, 189 USPQ 257, 261 (1976). The issue is "whether the difference between the prior art and the subject matter in question "is a difference sufficient to render the claimed subject matter unobvious to

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one skilled in the applicable art.’ “ Dann, 425 U.S. at 228-29, 189 USPQ at 261 (citation omitted). To be nonobvious, an improvement must be “more than the predictable use of prior art elements according to their established function.’ KSR, 127 S. Ct. at 1740, 82 USPQ2d at 1396.

In KSR, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art, “*id.* At 1739, 82 USPQ2d at 1395, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the obviousness”). However, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill would employ.” *Id.* The court cautioned that “[a] factfinder should be aware, of course, of the distinction caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *Id.* At 1742, 82 USPQ2d at 1397.

The court noted that “[in] many fields it may be that there is little discussion of obviousness techniques or combinations, and it often may be the case that market demand , rather than scientific literature, will drive design trends.’ KSR, 127 S. Ct. at 1741, 82 USPQ2d at 1396. “Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.’ *Id.* At 1742, 82 USPQ2d at 1397. The Court also noted that “[c]ommon sense teaches...that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.’ *Id.* At 1742, 82 USPQ2d at 1397. “A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *Id.*

Furthermore, the Supreme Court explained that “{w}hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.” KSR, 127 S. Ct. at 1742, 82 USPQ2d at 1397. “If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense, “*id.* And, in such an instance” the fact that a combination was obvious to try might show that it was obvious under §103” *id.*

The level of ordinary skill in the art may be evidenced by the prior art references. In *re* GPAC Inc., 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (fed. Cir. 1995) (“Although the Board did not make a specific finding on skill level, it did conclude that the level of ordinary skill in the art...was best determined by appeal to the references of record...We do not believe that the Board clearly erred in adopting this approach.”); see also *In re* Oelrich, 579 F.2d 86, 91, 198 USPQ 210, 214 (CCPA 1978) (“the PTO usually must evaluate both the scope and content of the prior art and the level of ordinary skill solely on the cold words of the literature”).

In sustaining a multiple reference rejection under 35 U.S.C. §103(a), the Board may rely on one reference alone without designating it as a new ground of rejection. In

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re Bush, 296 F. 2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961); in re Boyer, 363 F. 2d 455, 458 n. 2, 150 USPQ 441, 444 n.2 (CCPA 1966).

During examination of patent application, a claim is given its broadest reasonable construction consistent with the specification. In re Prater, 415 F. 2d. 1393, 1404-05, 162 USPQ 541, 550-51, (CCPA 1969). “[T]he words of a claim ‘are generally given their ordinary and customary meaning.’ “

Phillips v. AWH Corp., 415 F. 3d 1303, 1312, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (en banc) (internal citations omitted). The “ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* At 1313, 75 USPQ2d at 1326.

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11. Claims 17 through 20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 through 19 of U.S. Patent No. 7,367,721 B2 and Pasquarella et al. U.S. Patent 6,652,165 B1 in view of Bovenzi et al. U.S. Patent 5,502,524.

Reasons for combining U.S. Patent 7,367,721 with U.S. Patent 5,502,524 are given with respect to the rejection of claim 16 as set forth above.

Pasquarella 6,652,165 B1 is analogous to 7,367,721 B2 but claims different aspects of the invention. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify 7,357,721 B2 in view of 6,652,165 B1 with a reasonable expectation of success. Furthermore, the claims of ‘165 describe the drive arm of claims 17 and 18 including a detent and bumpers.

For claim 19 of the application, see claim 2 of ‘165 B1, for example.

For claim 20 of the application, see claim 1 of ‘165 for example.



***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. P. Vlahos U.S. Patent 2,933,009 teaches a speed variation indicator and the teaching illustrates that springs may provide damping.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA J. KOVAL whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Primary Examiner, Art Unit 2862

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MJK